Sequence Listing

<110> Sidhu, Sachdev S.
Weiss, Gregory A.
Wells, James A.

<120> TRANSFORMATION EFFICIENCY IN PHAGE DISPLAY THROUGH MODIFICATION OF A COAT PROTEIN

<130> 11669.141USWO

<140> US 09/380,447
<141> 1999-09-01

<150> US 60/134,870
<151> 1999-05-19

<150> US 60/133,296
<151> 1999-05-10

<150> US 60/103,514
<151> 1998-10-08

<150> US 60/094,291
<151> 1998-07-27

<150> PCT/US99/16596
<151> 1999-07-22

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ccgctct 57

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cattgtcggc gcaact 66

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tatcggttat gcgtgg 66

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<400> 67
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<220>
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<400> 68
gaacttttct ttctcgcggg gactgtgcat ctt 33

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ttctttctcc ttggggcggt gcatcttgtc att 33

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<210> 73
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<210> 74
<211> 36
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<400> 74
gcaaaagcgg cctataactc ccttgaggat attgct 36

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<211> 48

<212> DNA
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<220>
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<400> 75
gcaaaagcgg cctataacgc tcttgaggat tcagctacta actatatc 48

<210> 76
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<212> DNA
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<220>
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cccgcaaaag cggcctatga gtcccttgag gattcagcta ctaactatat 50

cggttatgcg 60

<210> 77
<211> 48
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gcaaaagcgg cctataactc ccttgaggat tcagctacta actatatc 48

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<220>
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<400> 78
Gln Ser Gly Gly Gly Ser Gly Ser Ser Ser
1 5 10

<210> 79
<211> 5
<212> PRT
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<220>
<223> penta peptide

<400> 79
Gly Gly Arg Pro Val
1 5

<210> 80
<211> 34
<212> DNA
<213> Artificial

<220>
<223> linker oligonucleotide

<400> 80
cagagcggtg gaggatccgg gagctccaga gggt 34

<210> 81
<211> 39
<212> DNA
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<220>
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<400> 81
cagagcggtg gaggatccgg gagctccagc gccgagggt 39

<210> 82
<211> 12
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<220>
<223> peptide flag

<400> 82
Met Ala Asp Pro Asn Arg Phe Arg Gly Lys Asp Leu
1 5 10

<210> 83
<211> 60
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<220>
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<400> 83
gatggtgaag ctgcggctga tgcatctggt agcgtctaga gccaccatca 50

ccatcaccat 60

<210> 84
<211> 60
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<220>
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<400> 84
gctgtcggta ttatttacat gctcctcgtg gaggcgtcgc cctgggctgc 50

taaggcgcca 60

<210> 85
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<400> 85
acctcgaaag caagccatca ccatcaccat gcg 33

<210> 86
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<400> 86
acctcgaaag caagcggcca tcaccatcac catgcg 36

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<400> 87
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<400> 89
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g 51

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tgcg 54

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tcaccatgcg 60

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<211> 63
<212> DNA
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<400> 94
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ccatcaccat gcg 63

<210> 95
<211> 69
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<400> 95
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ccatcaccat caccatgcg 69

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<400> 96
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tggtggccat caccatcacc atgcg 75

<210> 97
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<400> 97
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tggcggtggt ggccatcacc atcaccatgc g 81

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<400> 98
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cggtggtggc ggtggtggcc atcaccatca ccatgcg 87

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ttttgttttt 60

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tgttgat 57

<210> 102
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<400> 102
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ttggatttgg gctgtcggt 69

<210> 103
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gtttttctg ttgatgttga tnnsnnsnns nnsnnsnnsn nsnnsnnsnn 50

sgcggctgat gcattccca 69

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<400> 104
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tgctaaggcg ccagacgatg gt 72

<210> 105
<211> 69
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<400> 105
agcgctcagc tgagcaactt cnnsnnsnns nnsnnsnnsn nsnnsnnsnn 50

sgcggctgat gcattccca 69

<210> 106
<211> 81
<212> DNA
<213> Artificial

<220>
<223> linker library

<400> 106
gatggtgaag ctgcggctvv cvvcvvcvvc vvcvvcvvcv vcvvcvvcvv 50

cvvcvvcvvc gatgcattcc caactatacc a 81

<210> 107
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tnwtnkgnyt nkgnytnwcn ktnwtnwtga gactgctagc gctcag 96

<210> 108
<211> 21
<212> DNA
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<220>
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<400> 108
caccatcacc atcaccatgc g 21

<210> 109

<211> 30
<212> DNA
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<220>
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<400> 109
gcctgggagg agaacatcga cagcgccccc 30

<210> 110
<211> 10
<212> PRT
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<220>
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<400> 110
Ala Trp Glu Glu Asn Ile Asp Ser Ala Pro
1 5 10

<210> 111
<211> 30
<212> DNA
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<220>

<223> linker oligonucleotide

<400> 111
cagtacggga cgccggacac cgacaccgac 30

<210> 112
<211> 10
<212> PRT
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<220>
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Gln Tyr Gly Thr Pro Asp Thr Asp Thr Asp
1 5 10

<210> 113
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<220>
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<400> 113
acggggtggt tggaggggcc cgacaccccc 30

<210> 114

<211> 10
<212> PRT
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<220>
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<400> 114
Thr Gly Trp Leu Glu Gly Pro Asp Thr Pro
1 5 10

<210> 115
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<212> DNA
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<220>
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<400> 115
ctcatgggcc ccggcgcgga cggc 24

<210> 116
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<220>
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<400> 116
Leu Met Gly Pro Gly Ala Asp Gly
1   5

<210> 117
<211> 24
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<220>
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<400> 117
cacgactcgg tcccgagcaa cggc 24

<210> 118
<211> 8
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<220>
<223> linker peptide

<400> 118
His Asp Ser Val Pro Ser Asn Gly
1   5

<210> 119
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<212> DNA
<213> Artificial

<220>
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<400> 119
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gctgagcaac ttcgctgcta aggcgccaga cgatggtgaa gctgcggctc 100

accatcacca tcaccatgcg 120

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<212> PRT
<213> Artificial

<220>
<223> linker peptide

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Met Ser Lys Ser Thr Phe Lys Lys Phe Leu Lys Glu Thr Ala Ser
1   5   10   15

Ala Gln Leu Ser Asn Phe Ala Ala Lys Ala Pro Asp Asp Gly Glu
                20   25   30

Ala Ala Ala His His His His His His Ala
                35   40

<210> 121
<211> 41
<212> PRT
<213> Artificial

<220>
<223> M13 coat protein VIII library

<220>
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<400> 121
Met Ser Lys Ser Thr Phe Lys Lys Phe Leu Lys Xaa Glu Thr Ala
1   5   10   15

Ser Ala Gln Leu Ser Asn Phe Ala Ala Lys Ala Pro Asp Asp Gly
                20   25   30

Glu Ala Ala Ala His His His His His His Ala
                35   40

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<211> 51
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<213> Artificial

<220>
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<400> 122
gctgcggctg atgcatctgg tagcgtctag agccaccatc accatcacca 50

t 51

<210> 123
<211> 54
<212> PRT
<213> Artificial

<220>
<223> P1-1 plus linker

<400> 123
Met Ser Lys Ser Thr Phe Lys Lys Phe Leu Lys Val Phe Val Phe
1   5   10   15

Ser Val Asp Val Asp Asn Asn Trp Ile Trp Ala Val Gly Ile Ile
                20   25   30

Glu Thr Ala Ser Ala Gln Leu Ser Asn Phe Ala Ala Lys Ala Pro
                35   40   45

Asp Asp Gly Glu Ala Ala Ala Asp Ala
                50

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<211> 150
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<220>
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tgatgttgat aataattgga tttgggctgt cggtattatt tacatgctcc 100

tcgtggaggc gtcgccctgg gctgctaagg cgccagacga tggtgaagct 150

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ttcacctcga aagcaagcnn snnsnnsnns caccatcacc atcaccat 48

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t 51

<210> 127
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1   5

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1 5

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<220>
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1 5

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cgccgccaac 60

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cggcaccggc 60

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Ala Arg Gly Thr Gly
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ccacgccccc 60

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Arg Gly His Ala Pro
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caccgccagc 60

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Pro Gly Thr Ala Ser
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cggcagccac 60

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cagcggcccc 60

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1 5 10 15

Ala Arg Ser Gly Pro
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Arg Gly Ser Asn Gly Ser Asp Ser Ser Ser
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Asp Gly Pro His Gly His Ser Ser Pro Arg

20 25

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tnwtnwt 57

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tattgtt 57

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<400> 268
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Val Gly Ile Val

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ttatgtt 57

<210> 270
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1   5   10   15

Tyr Gly Tyr Val

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tcttgtt 57

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1   5   10   15

Leu Phe Leu Val

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tgttaat 57

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His Val Val Asn

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ttttgat 57

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Asn Ser Phe Asp

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tgttaat 57

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Tyr Phe Val Asn

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Ala Ala His His His His His His Ala
1 5

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<400> 287
His His His His His His
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Xaa Gly Gly

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